Claims

1. A detector circuit to be used for measuring current by means of substantially identically wound ring core transformers, in which magnetomotive forces are induced by a main current (I_5), said magnetomotive forces being counteracted by magnetomotive forces induced by a compensating current (i_4), and where two of the ring core transformers (2, 3) are magnetized in antiphase by means of a modulation current, said detector circuit optionally also including a synchronous rectifier for generating an adjusting signal for the compensating current, and where means are provided for compensating for possible differences between the two ring core transformers (2, 3), **characterised by** the means for compensating for possible differences between the ring core transformers (2, 3) being formed by a common winding (L6) surrounding the two ring cores (2, 3), said common winding (L6) detecting a possible error signal used in a negative feedback loop which automatically seeks to establish an equilibrium.

2. A detector circuit according to claim 1, **characterised by** the negative feedback loop being provided by adding the error signal to the modulation signal in such a manner that said error signal is reduced and automatically seeks to reach zero.

3. A detector circuit according to claim 1 or 2, **characterised by** the modulation signal being supplied from the outside.

4. A detector circuit according to claim 1 or 2, **characterised by** being astable, the modulation signal being provided by means of a built-in multivibrator.

5. A detector according to claim 4, **characterised by** the multivibrator including a Schmitt trigger (A4).

6. A detector circuit according to one of the preceding claims, **characterised in** that an additional core (4) is added, said additional core not entering saturation because it is not supplied with a modulation signal, said additional ring core (4) being adapted to

compensate for the ring cores (2, 3) receiving said modulation signals being able to go into saturation.